

## ABSTRACT OF THE DISCLOSURE

The use of treated and/or impregnated aerogels, for chemical specific adsorption, as a sample collection media. The chemically specific aerogel provides an adsorbate as a sampling medium for airborne applications such as stack emissions, clean room environments, personnel dosimetry, etc. The aerogel is treated and/or impregnated to adsorb specific chemistries. The aerogel, after adsorption of a specific chemistry may be heated to release the collected species, or may be dissolved to release the collected species, whereafter the collected species may be analyzed in a GC/MS. The aerogels may be used in the both low and high-volume collectors. This process allows quicker, and therefore cheaper, analysis of airborne substances.